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WASHINGTON STATE UNIVERSITY

FOR MORE INFORMATION

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BARLEY

WSU CEREAL VARIETIES

HAVENER

SPRING BARLEY

Havener is a two-row, hulless, spring food barley developed by the Agricultural Research Center of Washington State University. Havener is named in honor of Robert and Elizabeth Havener, long-time champions in the effort to eradicate hunger and malnutrition worldwide.

Havener, developed specifically for human consumption, contains 50 to 75% higher β-glucan (a heart-healthy soluble dietary fiber) than common Washington-grown varieties Lyon, Muir, Champion, Bob and Baronesse. Havener has higher yields and test weights across all eastern Washington rainfall zones than the hulless variety Meresse.

AGRONOMICS FOR HULLESS FOOD MARKET CLASS

Yield Potential	Excellent
Test Weight	Excellent
Protein	Average
Height	Medium
Maturity	Medium

DISEASE RESISTANCE

Leaf Rust	Moderately Susceptible, similar to Meresse

HAVENER SPRING BARLEY

Five-Year WSU Variety Testing Data

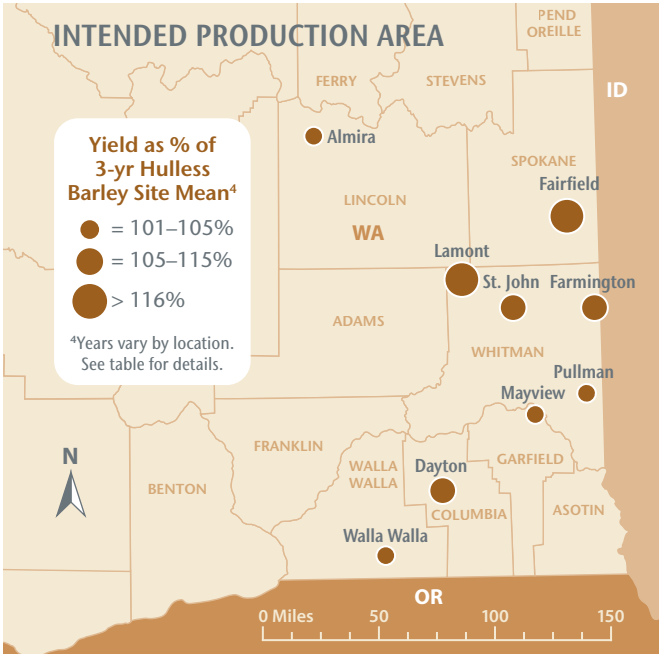
VARIETY	16"–20" BETA GLUCAN* (%)	16"–20" YIELD (BU/A)	16"–20" TEST WT (LBS/BU)	16"–20" PROTEIN (%)	>20" BETA GLUCAN** (%)	>20" YIELD (BU/A)	>20" TEST WT (LBS/BU)	>20" PROTEIN (%)
Havener	**6.33**	**3600**	**58.1**	**11.9**	**6.27**	**4110**	**59.2**	**11.0**
Lyon	4.70	4300	51.4	11.4	4.33	4760	51.6	10.2
Lenetah	4.21	4360	53.2	10.9	4.21	4930	53.2	10.0
Muir	4.13	4150	51.0	11.4	3.88	4900	52.1	10.2
LCS Vespa	3.99	4350	51.4	11.2	4.15	4640	51.3	10.4
CDC Copeland	3.86	3590	48.9	11.3	3.63	4000	49.9	10.4
Champion	3.68	4290	53.7	10.8	3.71	4580	53.5	9.8
LCS Genie	3.38	4120	51.8	10.9	3.78	4690	52.2	10.2
LCS Odyssey	3.29	3970	50.3	11.1	3.87	4710	50.8	10.0
C.V. %	na	8	1	5	na	11	2	5.6
LSD (0.05)	na	170	0.4	0.3	na	250	0.5	0.3

16"–20" Precip (Dayton, Mayview, St. John, Walla Walla) 2017–2018, 6 loc/years
>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2017–2018, 8 loc/years
*Beta glucan (Dayton, Mayview) 2017–2018, 4 loc/years
**Beta glucan (Fairfield, Farmington, Palouse) 2017–2018, 6 loc/year

AVAILABILITY

Foundation seed of **Havener** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.



LYON

SPRING BARLEY

Lyon is a two-row dual-purpose malt and feed barley developed by the Agricultural Research Center of Washington State University. Lyon is named in honor of Steven R. Lyon, a farmer and long-time wheat researcher at Washington State University.

Lyon is a high yielding, broadly adapted variety particularly well suited to intermediate and high rainfall zones of the Palouse where Bob, Baronesse, Lenetah, and Champion are currently being grown. Lyon has excellent stem rust resistance, high protein, and plump kernels across a wide range of environments.

AGRONOMICS

Yield Potential	Excellent
Protein	Very Good
Test Weight	Average
Maturity	Medium
Height	Medium
Plump Kernels	Excellent

DISEASE RESISTANCE

Stem Rust	Excellent
Leaf Rust	Excellent
Stripe Rust	Moderately Susceptible

LYON SPRING BARLEY

Five-Year WSU Variety Testing Data

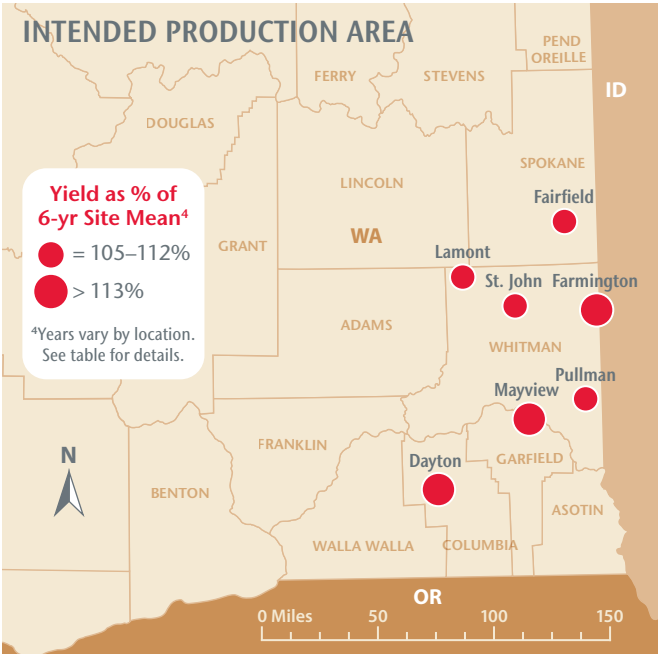
VARIETY	16"–20" YIELD (BU/A)	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Lenetah	4180	5100	52.8	11.1
LCS Vespa	4180	4880	51.3	11.4
Lyon	**4060**	**4900**	**51.6**	**11.2**
LCS Odyssey	4040	4910	50.8	10.8
Champion	3960	4950	53.4	11.0
LCS Genie	3960	4960	51.9	10.9
Muir	3920	4930	51.9	11.5
CDC Copeland	3500	4450	50.2	11.2
C.V. %	8	10	2	6
LSD (0.05)	110	170	0.4	0.2

16"–20" Precip (Dayton, Mayview, St. John, Walla Walla) 2014–2018, 17 loc/years
>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2014–2018, 15 loc/years

AVAILABILITY

Foundation seed of **Lyon** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.



MEG'S SONG

SPRING BARLEY

Meg's Song is a two-row, hulless, spring food barley developed by the Agricultural Research Center of Washington State University. Meg's Song is named in honor of Meg Gollnick for her dedication to and work in agricultural research, and for her love of cooking and baking with flavorful and nutritious grains.

Meg's Song, developed specifically for human consumption, contains 70 to 100% higher β-glucan (a heart-healthy dietary fiber) than common Washington grown varieties. Meg's Song is a high-yielding waxy barley, with excellent tolerance to lodging, high test weight and protein, and unique culinary characteristics.

AGRONOMICS AND QUALITY FOR HULLESS FOOD MARKET CLASS

Yield Potential	Excellent
Test Weight	Excellent
Protein	High
Height	Medium
Maturity	Medium
Standability	Strong
Starch	Waxy

MEG'S SONG SPRING BARLEY

2018 WSU Variety Testing Data

VARIETY	16"–20" BETA GLUCAN* (%)	16"–20" YIELD (BU/A)	16"–20" TEST WT (LBS/BU)	16"–20" PROTEIN (%)	>20" BETA GLUCAN* (%)	>20" YIELD (BU/A)	>20" TEST WT (LBS/BU)	>20" PROTEIN (%)
Meg's Song	**6.95**	**3720**	**53.7**	**13.1**	**7.25**	**4440**	**54.6**	**12.5**
Havener	6.02	4070	56.7	11.7	6.49	4650	56.1	11.0
Lyon	5.04	4940	51.7	11.0	4.46	5280	50.6	10.0
Survivor	4.56	4160	52.0	11.8	3.96	4580	51.4	11.0
Lenetah	4.33	4880	53.6	10.6	4.21	5460	52.4	9.9
Muir	4.25	4840	52.1	10.5	3.97	5540	51.6	10.0
LCS Vespa	4.26	4880	51.5	10.9	4.15	4980	49.4	10.5
CDC Copeland	4.01	4320	48.9	10.8	3.83	4750	49.3	10.4
Champion	3.94	4800	54.4	10.4	3.63	5100	52.6	9.7
C.V. %	na	7	2	5	na	10	2	5
LSD (0.05)	na	230	0.5	0.4	na	350	0.7	0.4

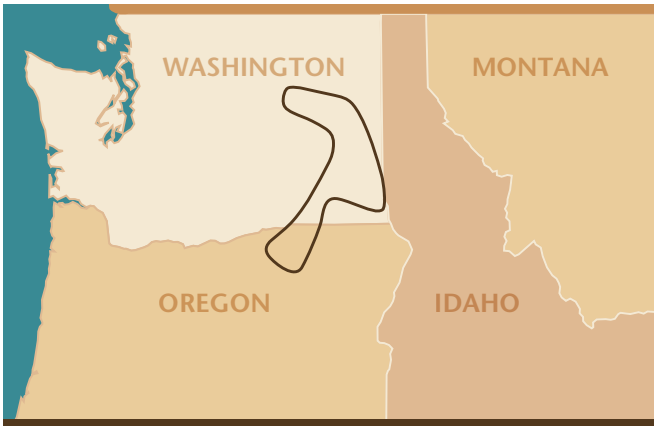
16"–20" Precip (Dayton, Mayview, St. John, Walla Walla) 2018
>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2018
*Beta glucan data: 16"–20" (Dayton, Mayview) 2018, >20" Precip (Fairfield, Farmington, Palouse) 2018

AVAILABILITY

Foundation seed of **Meg's Song** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection status for this cultivar pending.



Dryland Grain Production Areas >12" Precipitation

MUIR

SPRING BARLEY

Muir is a two-row spring feed barley developed by the Agricultural Research Center of Washington State University. Muir is named in honor of Carl Muir, a former graduate student of Orville Vogel and a long-time field supervisor with the WSU Barley Breeding Program.

Muir is a high yielding variety adapted to low to intermediate rainfall zones of the Palouse. Muir provides an excellent multi-disease resistance package, has reliably plump kernels and high protein, and performs well in low-input and organic systems.

AGRONOMICS

Yield Potential	Excellent in All Rainfall Zones
Test Weight	Average
Protein	Above Average
Plump Kernels	Excellent
Height	Shorter than Average
Maturity	Medium-Early

DISEASE RESISTANCE

Stem Rust	Excellent
Leaf Rust	Excellent
Stripe Rust	Excellent High-Temperature, Adult-Plant Resistance
Powdery Mildew	Resistant

MUIR SPRING BARLEY

Five-Year WSU Variety Testing Data

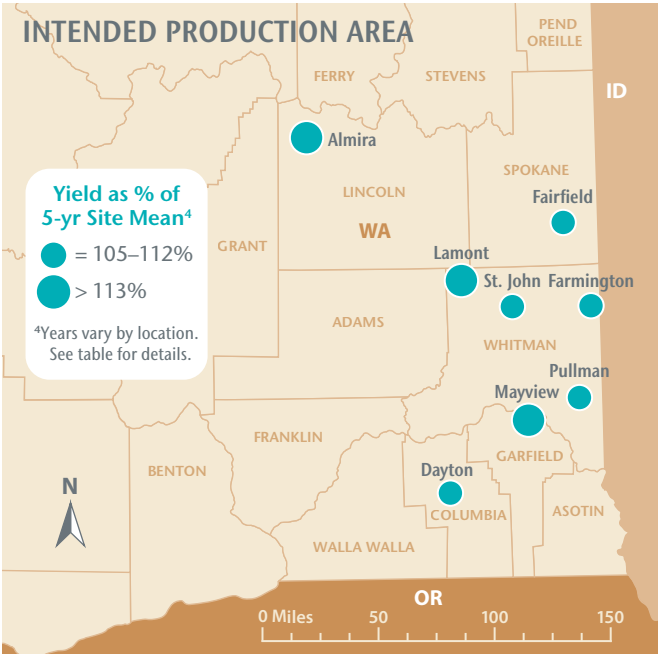
VARIETY	>20" YIELD (BU/A)	16"–20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Lenetah	5100	4180	52.8	11.1
Champion	4950	3960	53.4	11.0
Muir	**4930**	**3920**	**51.9**	**11.5**
LCS Odyssey	4910	4040	50.8	10.8
Lyon	4900	4060	51.6	11.2
LCS Vespa	4880	4180	51.3	11.4
CDC Copeland	4450	3500	50.2	11.2
C.V. %	10	8	2	6
LSD (0.05)	170	110	0.4	0.2

>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2014–2018, 15 loc/years
16"–20" Precip (Dayton, Mayview, St. John, Walla Walla) 2014–2018, 17 loc/years

AVAILABILITY

Foundation seed of **Muir** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.



SURVIVOR

SPRING BARLEY

Survivor is a two-row, hulled, spring feed barley developed by the Agricultural Research Center of Washington State University. Survivor is the first barley variety in the U.S. that possesses tolerance to IMI-herbicides in a high yielding genetic background. Survivor is adapted across all rainfall zones in dryland farming systems in eastern Washington. It is moderately resistant to stripe rust and has high protein and test weight in the feed barley market class.

Survivor is not intended to be sprayed with IMI herbicides; rather it was developed to withstand residual herbicides in the soil.

AGRONOMICS FOR THE HULLESS, FEED BARLEY MARKET CLASS

Yield Potential	Average
Test Weight	Excellent
Protein	High
Height	Medium
Maturity	Medium

DISEASE RESISTANCE

Stripe Rust	Moderately Resistant

SURVIVOR SPRING BARLEY

Three-Year WSU Variety Testing Data

VARIETY	16"–20" YIELD (BU/A)	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Lyon	4440	5000	51.7	10.8
Muir	4270	5090	52.2	10.9
Survivor	**3990**	**4690**	**52.9**	**11.3**
CDC Copeland	3880	4490	50.2	11.2
Havener	3680	4310	59.3	11.7
C.V. %	8	10	2	6
LSD (0.05)	170	210	0.4	0.2

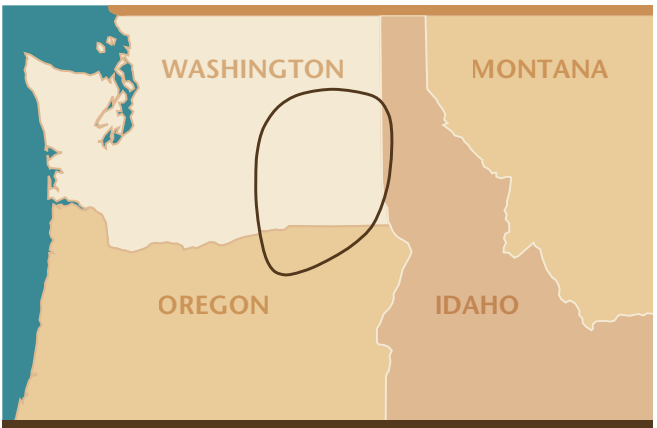
>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2016–2018, 11 loc/years
16"–20" Precip (Dayton, Mayview, St. John, Walla Walla) 2016–2018, 10 loc/years

AVAILABILITY

Foundation seed of **Survivor** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection status for this cultivar pending.



Dryland Grain Production Areas >12" Precipitation

WHEAT

WSU CEREAL VARIETIES

Support for the development of all wheat varieties was provided by Washington State University, the USDA, and the Washington Grain Commission. For more information visit ***smallgrains.wsu.edu/variety****.*

ALUM

HARD RED SPRING WHEAT

Alum, a newly released hard red spring wheat from Washington State University, is intended to provide growers with low soil pH and aluminum toxicity a very solid and broadly adapted hard red spring wheat variety.

Alum has very good adult plant stripe rust resistance, Hessian fly resistance, above average test weight, very good aluminum tolerance, medium plant height with good straw strength, and very good-to-excellent yield potential across the PNW. Alum should be of particular interest to growers in Spokane, eastern Whitman, Columbia, and Walla Walla counties in Washington, and in northern Idaho.

AGRONOMICS

Yield Potential	Very Good–Excellent
Test Weight	Very Good
Protein	Average
Maturity	Medium-Later
Height	Medium
Quality	Most Desirable
Straw Strength	Very Good

DISEASE RESISTANCE

Stripe Rust	Very Good Adult Resistance[1]
Hessian Fly	Resistant
Aluminum Tolerance	Excellent

[1] Early season application of fungicides should be considered to limit seedling infection.

ALUM HARD RED SPRING WHEAT

Three-Year WSU Variety Testing Data

VARIETY	>20" YIELD (LBS/A)	12"–16" YIELD (LBS/BU)	TEST WT (LBS/BU)	PROTEIN (%)	HESSIAN FLY*
LCS Iron	78	52	60.0	12.3	S
Glee	78	49	61.6	12.5	R
Alum	**76**	**51**	**61.4**	**12.8**	**R**
SY Gunsight	76	50	60.9	12.4	S
LCS Luna	75	50	61.1	12.8	S
Chet	75	49	62.0	13.6	R
SY Selway	74	49	60.5	12.9	R
SY Coho	73	49	58.7	13.1	S
WB9518	71	43	60.6	14.0	S
Hollis	70	43	60.4	13.5	R
LCS Buck Pronto	70	43	60.5	14.0	S
WB9668	68	42	61.6	14.8	R
Kelse	67	46	60.9	13.5	R
SY605 CL	63	42	61.7	13.6	S
C.V. %	7	9	1	5	
LSD (0.05)	2	2	0.3	0.2	

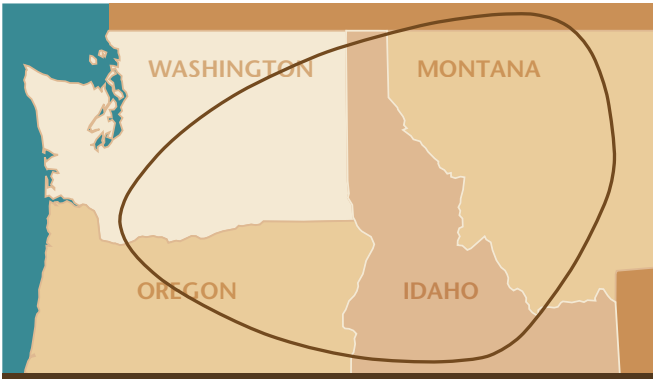
>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2016–2018, 10 loc/years
12"–16" Precip (Almira, Endicott, Lamont, Reardan) 2016–2018, 9 loc/years
*Hessian fly ratings from University of Idaho. R= Resistant, S=Susceptible

AVAILABILITY

Foundation seed of **Alum** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection status for this cultivar is approved.



Dryland Wheat Areas >12" Precipitation, Especially All Low pH Areas

CHET

HARD RED SPRING WHEAT

Chet, a tall hard red spring wheat from Washington State University, is our best variety option for low-rainfall areas of eastern Washington and Oregon.

Chet has very good adult plant stripe rust resistance, Hessian fly resistance, excellent test weight, very good aluminum tolerance, tall plant height with good straw strength, and very good-to-excellent yield potential across low rainfall areas of the PNW. Chet should replace Hollis and Kelse acres in low rainfall areas due to superior yield, test weight, protein content, and stripe rust resistance.

AGRONOMICS

Yield Potential	Very Good–Excellent
Test Weight	Excellent
Protein	Excellent
Maturity	Medium–Later
Height	Tall
Quality	Most Desirable
Straw Strength	Very Good

DISEASE RESISTANCE

Stripe Rust	Very Good Adult Resistance[1]
Hessian Fly	Resistant
Aluminum Tolerance	Excellent

[1] Early season application of fungicides should be considered to limit seedling infection.

CHET HARD RED SPRING WHEAT

Three-Year WSU Variety Testing Data

VARIETY	12"–16" YIELD (LBS/A)	<12" YIELD (LBS/BU)	TEST WT (LBS/BU)	PROTEIN (%)	HESSIAN FLY*
LCS Iron	52	34	61.1	13.2	S
LCS Luna	50	34	61.8	13.6	S
Alum	51	34	62.3	13.8	R
SY Gunsight	50	33	62.1	13.3	S
SY Coho	49	33	59.7	13.8	S
Chet	**49**	**33**	**62.3**	**14.6**	**R**
Glee	49	33	62.6	13.5	R
SY Selway	49	32	60.8	13.7	R
Kelse	46	31	62.0	14.4	R
Hollis	43	30	61.0	14.2	R
SY605 CL	42	30	62.2	14.6	S
LCS Buck Pronto	43	28	61.4	14.9	S
WB9668	42	28	62.2	16.0	R
WB9518	43	26	61.1	15.3	S
C.V. %	9	8	1.6	4.3	
LSD (0.05)	2	1	0.3	0.2	

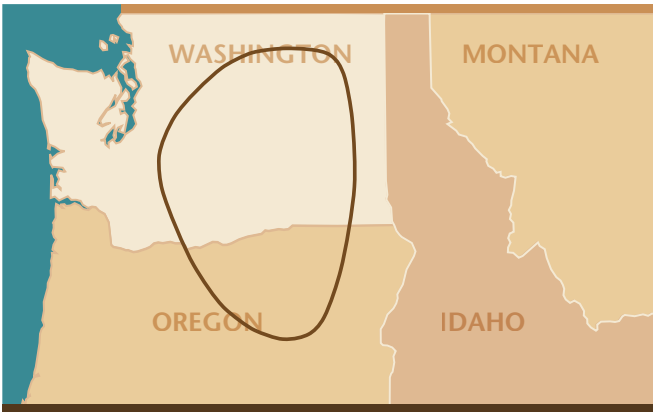
12"–16" Precip (Almira, Endicott, Lamont, Reardan) 2016–2018, 9 loc/years
<12" Precip (Bickleton, Horse Heaven, Lind) 2016–2018, 7 loc/years
*Hessian fly ratings from University of Idaho. R= Resistant, S=Susceptible

AVAILABILITY

Foundation seed of **Chet** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection status for this cultivar is approved.



Dryland Wheat Areas <14" Annual Precipitation

CURIOSITY CL+

SOFT WHITE WINTER TWO-GENE IMI WHEAT

Curiosity CL+ is a soft white common winter two-gene Imidazolinone tolerant (Clearfield) wheat variety developed and released in 2013 by the Agricultural Research Center of Washington State University. It's the first two-gene Clearfield (CL+) wheat variety released by WSU. Compared to the single-gene, the two-gene technology provides significantly better tolerance to Imidazolinone group of herbicide imazamox. Curiosity CL+ was developed using marker-assisted background selection approach. Compared to popular wheat varieties including those with Clearfield technology, Curiosity CL+ has higher yield potential, excellent snow mold resistance, and better stripe rust resistance. Curiosity CL+ is ideal for Pacific Northwest areas where ORCF102, ORCF103, Eltan and Xerpha are currently grown.

AGRONOMICS

Imidazolinone Tolerance	Two-gene
Yield Potential	Excellent
Test Weight	High
Grain Protein	Good
Cookie Diameter	Very Good
Sponge Cake Performance	Superior
Quality	Acceptable

DISEASE RESISTANCE

Stripe Rust	Moderately Resistant
Snow Mold	Better than Eltan
Winter Hardiness	Similar to Eltan
Cephalosporium Stripe	Equal to Eltan
Strawbreaker Foot Rot	Similar to Eltan

CURIOSITY CL+ SOFT WHITE WINTER WHEAT

Five-Year Variety Testing Data from 2014–2018*

VARIETY	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	FALLING NUMBERS (SEC)
Curiosity CL+	**55**	**60.3**	**10.7**	**312**
ORCF102	52	60.1	11.5	338
ORCF103	47	59.7	11.2	337
Otto	54	59.8	11.5	354
Eltan	52	60.0	11.8	346
C.V. %	8	1.8	5.8	–
LSD (0.05)	1.0	0.3	0.2	–

<12" Precip (Connell, Harrington, Horse Heaven, Lind, Ritzville, St. Andrews) 2014–2018, 24 loc/years
Falling number based on 9 location average in 2013 (3), 2016 (3), 2017 (2), and 2018 (1)

AVAILABILITY

Foundation seed of **Curiosity CL+** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

Curiosity CL+ is protected under U.S. Plant Variety Protection with Title 5 option.

Intended Production Area <12" Annual Precipitation

GLEE

HARD RED SPRING WHEAT

Glee is a hard red spring wheat developed by the Agricultural Research Center of Washington State University. Glee was named in honor of Virginia Gale Lee, an inspiring graduate student in the WSU Spring Wheat Breeding program who died from a rare, aggressive form of cancer in 2010.

Glee provides a combination of high yield potential and excellent disease resistance in dryland spring wheat production areas of the inland Pacific Northwest. Glee's five-year yield average is significantly higher than all comparison hard red spring varieties in WSU Variety Testing Trials from 12 to >20 inches of annual precipitation. Year after year, Glee performs.

AGRONOMICS

Yield Potential	Excellent
Protein	Average
Test Weight	Very Good
Maturity	Medium–Early
Height	Medium
Quality	Most Desirable

DISEASE RESISTANCE

Stripe Rust	Excellent Adult Resistance[1]
Hessian Fly	Resistant

[1] Early season application of fungicides should be considered to limit seedling infection.

GLEE HARD RED SPRING WHEAT

Three-Year WSU Variety Testing Data

VARIETY	>20" YIELD (BU/A)	16"–20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	HESSIAN FLY*
Glee	**78**	**64**	**61.5**	**12.2**	**R**
LCS Iron	78	64	60.1	11.9	S
SY Gunsight	76	62	60.6	12.1	
Alum	76	65	61.4	12.5	R
LCS Luna	75	63	60.8	12.5	
Chet	75	60	62.1	13.1	R
SY Selway	74	63	60.4	12.5	R
SY Coho	73	60	58.6	12.8	S
WB9518	71	57	60.6	14.0	S
Hollis	70	55	60.3	13.3	R
LCS Buck Pronto	70	57	60.3	13.6	S
WB9668	68	55	61.6	14.3	R
Kelse	67	60	60.7	13.3	R
SY605 CL	63	56	61.7	13.3	S
C.V. %	7	6	1	5	
LSD (0.05)	2	2	0.2	0.2	

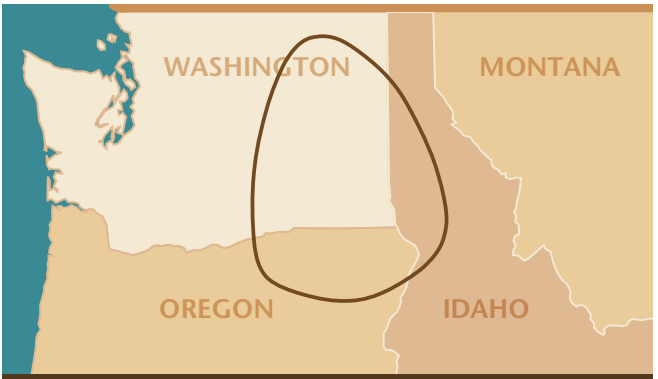
>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2016–2018, 10 loc/years
16"–20" Precip (Dayton,Mayview, Plaza, St. John, Walla Walla) 2016–2018, 12 loc/years
*Hessian fly ratings from University of Idaho. R= Resistant, S=Susceptible

AVAILABILITY

Foundation seed of **Glee** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection status for this cultivar is approved.



Dryland Wheat Areas >12" Precipitation, Except Low pH Areas

JASPER

SOFT WHITE WINTER WHEAT

Jasper (WA8169) is a soft white winter wheat developed and released in 2014 by the Agricultural Research Center of Washington State University. Jasper is named after the first wheat breeder at WSU, William Jasper Spillman, and is the 100th release from WSU. Jasper provides a combination of excellent yield potential, great end-use quality, and good disease resistance for many production regions of the inland Pacific Northwest. Jasper is broadly adapted to many dryland and irrigated areas in the states of Washington and Idaho, and has maintained high yield potential across locations and years.

AGRONOMICS

Yield Potential	Excellent
Protein	Good
Test Weight	Low
Maturity	Average
Height	Medium
Quality	Desirable

DISEASE RESISTANCE

Stripe Rust	Adult Plant Resistance
Strawbreaker Foot Rot	Tolerant
Snow Mold	Moderately Susceptible
Cephalosporium Stripe	Moderately Tolerant

JASPER SOFT WHITE WINTER WHEAT

Five-Year Variety Testing Data from 2014–2018

VARIETY *Club type	16"–20" YIELD (BU/A)	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Jasper	**104**	**122**	**58.3**	**10.7**
SY Ovation	101	109	59.9	10.6
Bobtail	101	115	57.0	10.3
Rosalyn	105	118	57.9	10.1
WB 528	96	105	61.1	11.0
LCS Artdeco	97	112	58.9	10.3
ARS-Crescent*	98	115	58.9	10.4
C.V. %	7	7	1	6
LSD (0.05)	1.8	2.8	0.2	0.01

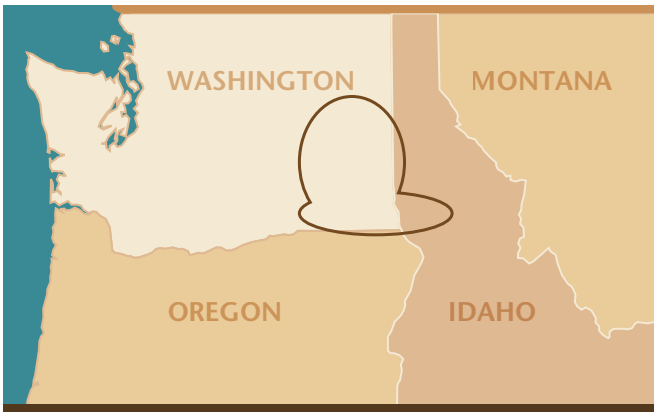
16"–20" Precip (Dayton, Mayview, St. John, Walla Walla) 2014–2015, 2017–2018, (Reardan) 2014–2015, 18 loc/years
>20" Precip (Colton, Fairfield, Pullman) 2014–2015, 2017–2018, (Farmington) 2014, 2018, 14 loc/years

AVAILABILITY

Foundation seed of **Jasper** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection status for **Jasper** was issued in 2017.



Intneded Production Area

MELA CL+

SOFT WHITE WINTER TWO-GENE IMI WHEAT

Mela CL+ is a soft white common winter two-gene Imidazolinone tolerant (Clearfield™) wheat variety developed and released in 2013 by the Agricultural Research Center of Washington State University. It's the second two-gene Clearfield (CL+) wheat variety released by WSU. Compared to the single-gene Clearfield™, the two-gene technology provides significantly better tolerance to Imidazolinone group of herbicide imazamox. Mela CL+ was developed using marker-assisted background selection approach. Compared to popular wheat varieties including those with Clearfield™ technology, Mela CL+ has higher yield potential, excellent snow mold resistance, and better stripe rust resistance. Mela CL+ is ideal for Pacific Northwest areas where ORCF103, Eltan and Xerpha are currently grown.

AGRONOMICS

Imidazolinone Tolerance	Two-gene
Yield Potential	Excellent
Test Weight	High
Grain Protein	Good
Cookie Diameter	Very Good
Sponge Cake Performance	Superior
Quality	Desirable

DISEASE RESISTANCE

Stripe Rust	Moderately Resistant
Snow Mold	Better than Eltan
Winter Hardiness	Similar to Eltan
Cephalosporium Stripe	Equal to Eltan
Strawbreaker Foot Rot	Moderately Resistant

MELA CL+ SOFT WHITE WINTER WHEAT

Four-Year Variety Testing Data from 2014–2018

VARIETY	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	FALLING NUMBERS (SEC)
Mela CL+	**56**	**60.3**	**10.8**	**325**
ORCF102	52	60.1	11.5	338
ORCF103	47	59.7	11.2	337
Otto	54	59.8	11.5	354
Eltan	52	60.0	10.8	346
C.V. %	8.0	1.8	5.8	–
LSD (0.05)	1.0	0.3	0.2	–

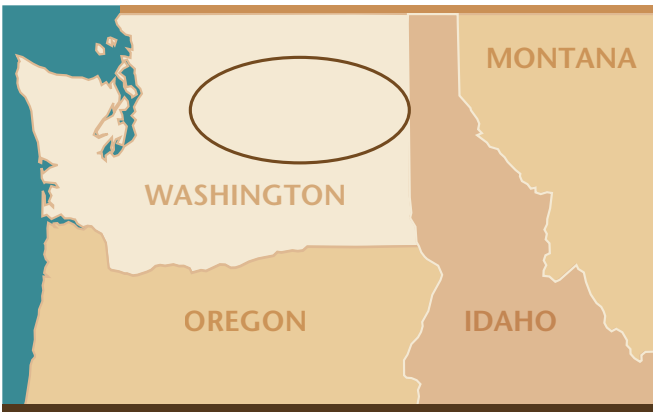
<12" Precip (Connell, Harrington, Horse Heaven, Lind, Ritzville) 2014–2018, 24 loc/years
Falling number based on 9 location average in 2013 (3) and 2016 (3)

AVAILABILITY

Foundation seed of **Mela CL+** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

Mela CL+ is protected under U.S. Plant Variety Protection with Title 5 option.



Intended Production Area <12" Annual Precipitation

MELBA

CLUB SPRING WHEAT

Melba is intended as a replacement for JD club spring wheat in intermediate, high rainfall, and irrigated production areas of the Pacific Northwest. Melba has similar maturity as JD, with shorter plant height, lower protein content, excellent resistance to stripe rust, very good test weight, and superior yield potential in intermediate, high rainfall, and irrigated production areas. Like JD, Melba is susceptible to Hessian fly. Melba is broadly adapted and has performed well in all production regions in the PNW.

AGRONOMICS

Yield Potential	Excellent
Test Weight	Very Good
Maturity	Medium-Late
Height	Short
Quality	Most Desirable
Straw Strength	Excellent

DISEASE RESISTANCE

Stripe Rust	Excellent
Hessian Fly	Susceptible
Aluminum Tolerance	Not Tolerant

MELBA CLUB SPRING WHEAT

Three-Year WSU Variety Testing Data

VARIETY *Club type	>20" YIELD (BU/A)	16"–20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	FALLING NUMBERS (SEC)
Tekoa	83	71	61.9	10.0	322
Ryan	82	74	60.6	10.0	329
Seahawk	81	74	61.4	10.4	325
Melba*	**78**	**72**	**60.9**	**9.9**	**319**
Diva	78	71	60.7	10.1	336
Whit	76	69	60.6	10.2	302
Louise	76	72	60.3	10.1	334
WB6121	76	66	61.6	11.2	277
JD*	75	68	62.0	10.6	319
WB6341	75	71	60.2	9.5	251
SY Saltese	73	66	61.2	10.0	342
Babe	69	64	60.6	10.0	333
WB-1035CL+	62	60	59.6	11.5	296
C.V. %	6	6	1	5	
LSD (0.05)	2	2	0.17	0.15	

>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2016–2018, 12 loc/years
16"–20" Precip (Dayton, Mayview, Plaza, St. John, Walla Walla) 2016–2018, 13 loc/years
Falling number based on 9 location average in 2015 (5) and 2016 (4)

AVAILABILITY

Foundation seed of **Melba** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection status for this cultivar is pending.

Dryland Wheat Areas >16" Annual Precipitation

NET CL+

CLEARFIELD™ HARD RED SPRING WHEAT

Net CL+ is a broadly-adapted hard red spring wheat with two-gene tolerance to Beyond™ herbicide for use in rotation in Clearfield™ production systems in all production zones of the Pacific Northwest. It has an excellent yield record, with above average grain protein, good adult resistance to stripe rust, medium height with very good straw strength, very good test weight, and Hessian fly resistance in low, intermediate, high rainfall production areas. Net CL+ combines top-end yield potential, high test weight, and above average grain protein compared to most hard red spring wheat varieties including Alum, Glee, Kelse, SY Selway, and comparison Clearfield™ varieties including SY 605 CL and WB9879 CL+. Tolerance to Group II herbicide soil carryover in Pacific Northwest production is of broad importance in Eastern Washington and Northern Idaho.

AGRONOMICS

Yield Potential	Excellent
Protein	Very Good
Test Weight	Very Good
Maturity	Medium–Later
Height	Medium
Quality	Most Desirable
Straw Strength	Good

DISEASE RESISTANCE

Stripe Rust	Good Adult Resistance
Hessian Fly	Resistant
Aluminum Tolerance	Not tolerant

NET CL+ HARD RED SPRING WHEAT

Two-Year WSU Variety Testing Data

VARIETY	>20" YIELD (BU/A)	12"–16" YIELD (BU/A)	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
LCS Luna	73	46	34	61.3	13.1
Alum	73	46	34	61.5	13.3
LCS Iron	76	46	36	59.9	12.7
SY Gunsight	74	46	34	61.2	12.7
Chet	74	46	33	61.9	14.0
Net CL+	**73**	**46**	**34**	**62.0**	**13.5**
Glee	76	45	33	62.0	13.0
SY Selway	72	45	33	60.2	13.1
SY Coho	68	44	33	58.8	13.6
Kelse	68	42	31	61.4	13.9
Hollis	71	42	30	60.5	13.8
LCS Buck Pronto	69	41	30	60.7	14.4
SY605 CL	65	40	30	61.9	13.9
WB9518	67	38	27	60.7	14.6
WB9668	64	37	29	61.6	15.1
C.V. %	8	10	8	2	5
LSD (0.05)	2	2	2	0.3	0.2

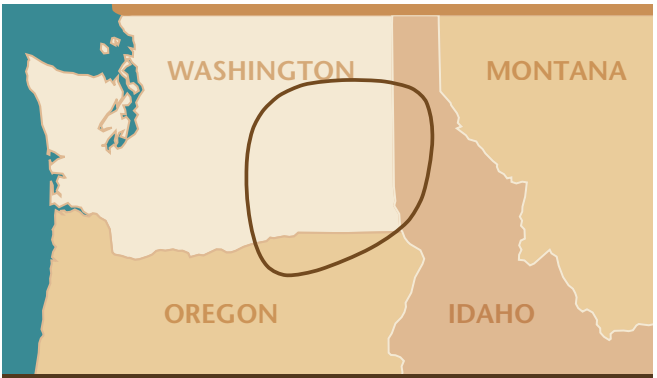
>20" Precip (Farmington, Palouse, Pullman) 2017–2018, 6 loc/years
12"–16" Precip (Almira, Endicott, Lamont, Reardan) 2017–2018, 7 loc/years
<12" Precip (Bickleton, Horse Heaven, Lind) 2017–2018, 5 loc/years

AVAILABILITY

Foundation seed of **Net CL+** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection status for this cultivar is pending.



Dryland Wheat Areas >12" Precipitation, Except Low pH Areas

OTTO

SOFT WHITE WINTER WHEAT

Otto is a soft white common wheat developed and released in 2011 by the Agricultural Research Center of Washington State University. Otto was named in honor of Otto Amen, a former state representative, WSU alumnus, and wheat producer who established an endowment to fund dryland wheat research in Washington.

Otto provides a combination of excellent yield potential and excellent disease resistance in dryland winter wheat production areas of the inland Pacific Northwest. Otto is best adapted to regions of Washington, Idaho, and Oregon where Eltan, Bruehl, and Xerpha are currently grown.

AGRONOMICS

Yield Potential	Excellent
Protein	Good
Test Weight	Similar to Eltan
Maturity	Equal to Eltan
Height	Equal to Eltan
Quality	Desirable

DISEASE RESISTANCE

Stripe Rust	Excellent
Strawbreaker Foot Rot	Similar to Madsen
Snow Mold	Equal to Eltan

OTTO SOFT WHITE WINTER WHEAT

Five-Year Variety Testing Data from 2014–2018

VARIETY *Club type	<12" YIELD (BU/A)	12"–16" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Otto	**51**	**87**	**59.6**	**11.1**
Puma	50	94	59.9	11.0
Xerpha	56	99	59.6	10.4
Eltan	50	87	60.0	10.6
Mela CL+	53	84	60.2	10.6
Curiosity CL+	53	87	60.2	10.5
Bruehl*	50	89	58.3	10.9
AR-Crescent*	51	92	59.1	10.7
C.V. %	10	9	2	6
LSD (0.05)	1	2	0.1	0.1

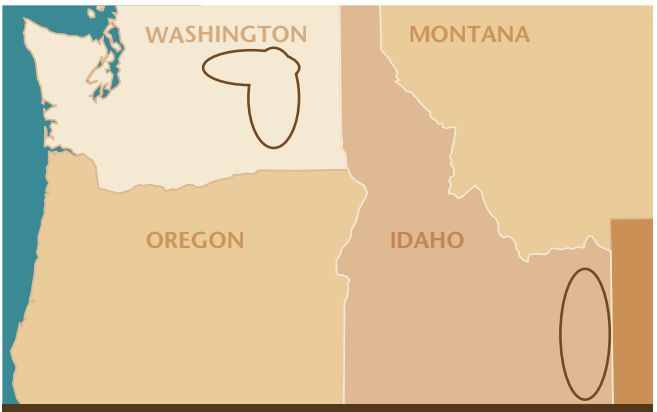
<12" Precip (Connell, Harrington, Horse Heaven, Lind) 2014–2018, (Ritzville) 2014–2015 and 2017–2018, (St. Andrews) 2017–2018, (Bickelton) 2018, 27 loc/years
12"–16" Precip (Almira, Creston) 2014–2018, (Anatone) 2014, 2016–2018, (Lamont) 2014–2016, 2018, (Reardan) 2015–2018, 22 loc/years

AVAILABILITY

Foundation seed of **Otto** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection for **Otto** was issued in 2014.



Dryland Wheat Areas <14" Annual Precipitation

PRITCHETT

CLUB WINTER WHEAT

Pritchett, a winter club wheat developed by Washington State University and the USDA-ARS, is targeted to the traditional low-intermediate rainfall club wheat growing region. Pritchett was named in honor of John Pritchett, who served the USDA-ARS wheat breeding program from 1957–2000.

Pritchett has excellent emergence from deep sowing, excellent club wheat quality, and excellent resistance to stripe rust and Cephalosporium stripe disease. Pritchett should replace Bruehl in low rainfall areas due to superior yield, test weight, milling quality, eyespot tolerance, earlier maturity, similar winter survival and moderate snow mold resistance. Pritchett has been intermediate to Bruehl and ARS Crescent for tolerance to low falling number. Grain of Pritchett grades as club wheat more consistently than Bruehl.

AGRONOMICS

Emergence	Excellent
Yield Potential	Very Good
Test Weight	Very Good
Maturity	Similar to Xerpha
Quality	Excellent
Straw Strength	Very Good
Protein	Good

DISEASE RESISTANCE

Stripe Rust	Excellent Adult Resistance
Eyespot	Good
Cephalosporium Stripe	Very Good

PRITCHETT CLUB WINTER WHEAT

Three-Year Variety Testing Data from 2016–2018

VARIETY *Club type	<12" YIELD (BU/A)	12"–16" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Xerpha	68	112	60.2	9.9
Norwest Duet	67	116	60.7	10.1
Pritchett*	**66**	**109**	**59.5**	**10.0**
Curiosity CL+	64	101	60.5	9.9
SY Banks	64	111	59.7	10.3
AR-Crescent*	62	109	59.8	10.0
Bruehl*	62	105	58.6	10.3
Otto	62	101	60.1	10.6
C.V. %	9	9	1.5	6
LSD (0.05)	2	2	0.3	0.1

<12" Precip (Connell, Harrington, Horse Heaven, Lind) 2016–2018, (Ritzville, St. Andrews) 2017–2018, (Bickelton) 2018, 17 loc/years

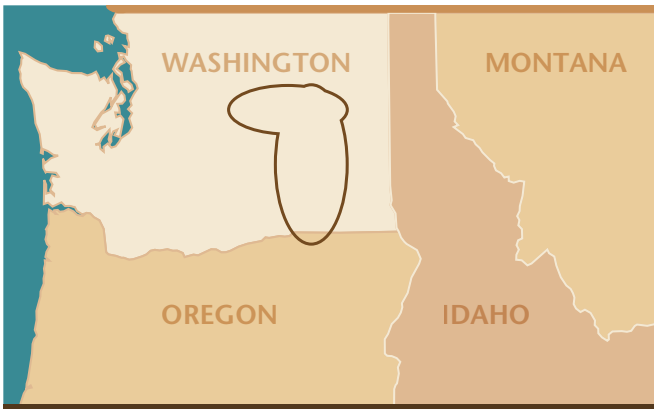
12"–16" Precip (Almira, Creston) 2016–2018, (Anatone) 2016–2018, (Lamont) 2016, 2018, (Reardan) 2016–2018, 14 loc/years

AVAILABILITY

Foundation seed of **Pritchett** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection for this cultivar is pending.



Dryland Wheat Areas <15" Annual Precipitation

PUMA

SOFT WHITE WINTER WHEAT

Puma (WA8134) is a soft white winter wheat developed and released in 2013 by the Agricultural Research Center of Washington State University. Puma provides a combination of excellent yield potential, test weight, end-use quality, and disease resistance for intermediate to high rainfall dryland winter wheat production areas of the inland Pacific Northwest. Puma is best adapted to regions of Washington, Idaho, and Oregon where Madsen, WB-528, WB-1529, and SY Ovation are currently under production. Puma has a unique disease resistant package for areas where low pH, Cephalosporium stripe, strawbreaker foot rot, and stripe rust are of concern.

AGRONOMICS

Yield Potential	Excellent
Test Weight	High
Grain Protein	Good
Maturity	Average
Height	Medium
Quality	Desirable

DISEASE RESISTANCE

Stripe Rust	Excellent Adult Resistance
Strawbreaker Foot Rot	Excellent
Cephalosporium Stripe	Moderately Tolerant
Low pH Soils	Moderately Tolerant (Similar to Madsen)

PUMA SOFT WHITE WINTER WHEAT

Five-Year Variety Testing Data from 2014–2018

VARIETY *Club type	16"–20" YIELD (BU/A)	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Puma	**104**	**118**	**60.2**	**10.6**
SY Ovation	105	115	60.4	10.6
Bobtail	107	121	57.9	10.3
Rosalyn	111	128	58.7	9.9
WB 528	100	111	61.5	10.9
LCS Artdeco	104	118	59.3	10.2
ARS-Crescent*	101	122	59.5	10.3
C.V. %	7	7	1	5
LSD (0.05)	2.1	2.4	0.1	0.1

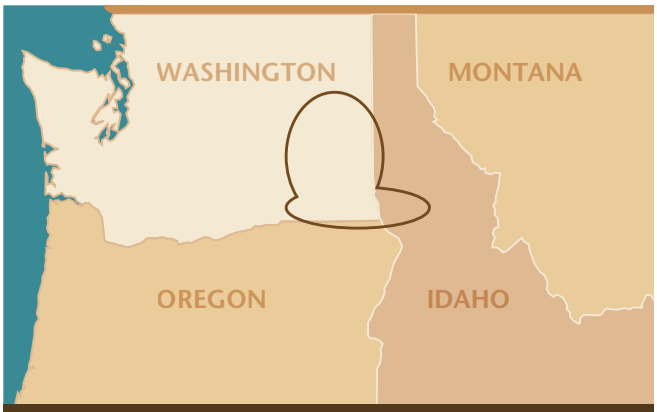
16"–20" Precip (Dayton, Mayview, St. John, Walla Walla) 2014–2018, (Reardan) 2014–2015, 22 loc/years
>20" Precip (Colton, Pullman) 2014–2018, (Farmington) 2014–2016, 2018, (Fairfield) 2014, 2016–2018, 18 loc/years

AVAILABILITY

Foundation seed of **Puma** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection for **Puma** was issued in 2015.



Intended Production Area

PURL

SOFT WHITE WINTER WHEAT

Purl (WA8234) is a soft white winter wheat developed and released in 2018 by the Agricultural Research Center of Washington State University. Purl provides a combination of excellent yield potential, high test weight, good end-use quality, and disease resistance. Purl is best adapted to the intermediate to high rainfall dryland production regions of the inland Pacific Northwest. The unique disease resistance package and high yield potential of Purl makes it an ideal cultivar for growers looking to minimize risk and maximize profit on their farms.

AGRONOMICS

Yield Potential	Excellent
Test Weight	High
Grain Protein	Good
Maturity	Average
Height	Medium
Quality	Acceptable

DISEASE RESISTANCE

Stripe Rust	Excellent Adult Resistance
Strawbreaker Foot Rot	Excellent
Nematodes	Resistant to *Heterodera avenae*
Low pH Soils	Moderately Tolerant

PURL SOFT WHITE WINTER WHEAT

Five-Year Variety Testing Data from 2014–2018

VARIETY *Club type	16"–20" YIELD (BU/A)	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Puma	**104**	**118**	**60.2**	**10.6**
SY Ovation	105	115	60.4	10.6
Bobtail	107	121	57.9	10.3
Rosalyn	111	128	58.7	9.9
WB 528	100	111	61.5	10.9
LCS Artdeco	104	118	59.3	10.2
ARS-Crescent*	101	122	59.5	10.3
C.V. %	7	7	1	5
LSD (0.05)	2.1	2.4	0.1	0.1

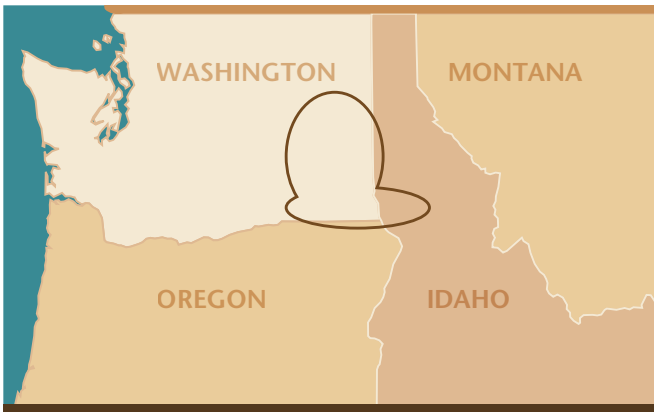
16"–20" Precip (Dayton, Mayview, St. John, Walla Walla) 2015–2018, (Reardan) 2015, 17 loc/years
>20" Precip (Colton, Fairfield, Pullman) 2015–2018, (Farmington) 2015–2016, 2018, 15 loc/years

AVAILABILITY

Foundation seed of **Purl** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection for this cultivar is pending.



RESILIENCE CL+

SOFT WHITE WINTER TWO-GENE IMI WHEAT

Resilience CL+ is a soft white common winter two-gene Imidazolinone tolerant (Clearfield™) wheat variety developed and released in 2016 by the Agricultural Research Center of Washington State University. Compared to the single-gene, the two-gene technology provides significantly better tolerance to Imidazolinone group of herbicide imazamox. Resilience CL+ was developed using marker-assisted background selection approach. Compared to popular wheat varieties including that with Clearfield™ technology, Resilience CL+ has higher yield potential, excellent stripe rust resistance and foot rot (eye spot) resistance. Resilience CL+ is ideal for high-rain fall regions of the Pacific Northwest where ORCF102 and SY Ovation are currently grown.

AGRONOMICS

Imidazolinone Tolerance	Two-gene
Yield Potential	Very Good—Excellent
Test Weight	High
Maturity	Medium
Height	Medium
Quality	Desirable

DISEASE RESISTANCE

Stripe Rust	Highly Resistant
Winter Hardiness	Similar to Madsen
Cephalosporium Stripe	Equal to Madsen
Strawbreaker Foot Rot	Similar to Madsen

RESILIENCE CL+ SOFT WHITE WINTER WHEAT

Five-Year Variety Testing Data from 2014–2018*

VARIETY	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	FALLING NUMBERS (SEC)
Resilience CL+	**115**	**60.6**	**10.7**	**332**
ORCF102	115	60.7	10.6	310
SY Ovation	115	60.2	10.2	249
Puma	118	60.1	10.1	333
Madsen	110	60.0	10.9	333
C.V. %	6.0	1.0	4.9	—
LSD (0.10)	2.0	0.2	0.2	—

>20" Percip (Colton, Fairfield, Farmington, Pullman) 2014–2018, 18 loc/years
*Data was not available for (Fairfield) 2015 and (Farmington) 2017 for the analysis
Falling numbers based on 11 location average in 2014 (3), 2016 (4), and 2018 (4)

AVAILABILITY

Foundation seed of **Resilience CL+** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection for this cultivar is pending.

Intended Production Area >20" Annual Precipitation

RYAN

SOFT WHITE SPRING WHEAT

Ryan is a broadly-adapted soft white spring wheat released in 2016 by Washington State University that may be grown in all production zones of the Pacific Northwest. It has early maturity, very good adult resistance to stripe rust, shorter height with very good straw strength, good test weight, Hessian fly resistance, aluminum tolerance, and excellent yield potential in low, intermediate, high rainfall, and irrigated production areas. Ryan uniquely packages early maturity, top-end yield potential, and yield protection traits compared to soft white spring wheat varieties including Whit, Babe, Diva, Louise, and others.

AGRONOMICS

Yield Potential	Excellent
Test Weight	Good
Maturity	Early
Height	Medium Short
Quality	Most Desirable
Straw Strength	Very Good

DISEASE RESISTANCE

Stripe Rust	Very Good Adult Resistance
Hessian Fly	Resistant
Aluminum Tolerance	Excellent

RYAN SOFT WHITE SPRING WHEAT

Three-Year WSU Variety Testing Data

VARIETY *Club type	>20" YIELD (BU/A)	12"–16" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	FALLING NUMBERS (SEC)
Ryan	**82**	**57**	**60.1**	**10.2**	**329**
Seahawk	81	57	61.2	10.7	325
Melba*	78	56	60.7	10.2	319
Diva	78	55	60.2	10.4	336
WB6341	75	55	60.0	9.7	251
JD*	75	55	61.8	10.8	319
Tekoa	83	54	61.7	10.3	322
Louise	76	54	59.8	10.4	334
Whit	76	53	60.5	10.5	302
SY Saltese	73	52	60.8	10.4	342
Babe	69	52	60.3	10.3	333
WB6121	76	51	61.3	11.7	277
WB-1035CL+	62	46	59.2	11.7	296
C.V. %	6	9	1	5	
LSD (0.05)	2	2	0.2	0.2	

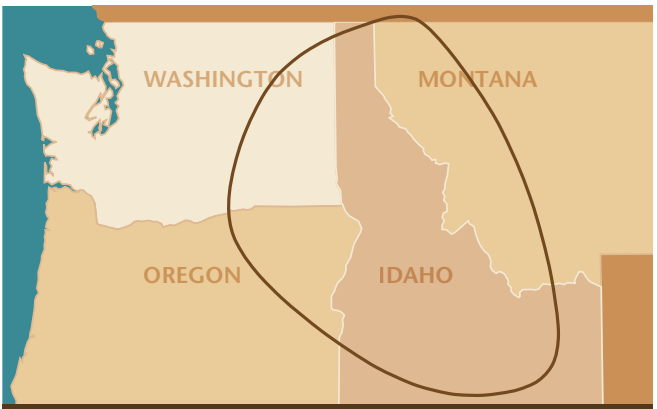
>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2016–2018, 12 loc/years
12"–16" Precip (Almira, Endicott, Lamont, Reardan) 2016–2018, 9 loc/years
Falling number based on 9 location average in 2015 (5) and 2016 (4)

AVAILABILITY

Foundation seed of **Ryan** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection for this cultivar is pending.



Dryland Wheat Area >12" Precipitation

SEAHAWK

SOFT WHITE SPRING WHEAT

Seahawk uniquely packages outstanding defense traits and very good yield potential—a winning combination.

Seahawk is nearly immune to stripe rust based on a combination of seedling and adult plant resistance genes and holds-up without fungicide application under the most severe epidemics. Seahawk genetics are mainly based on Whit and Alpowa backgrounds—proven across the PNW over the past 20 years. Hessian fly resistance, superior test weight, very good aluminum tolerance, Fusarium head scab tolerance, shorter plant height with good straw strength, and very good-to-excellent yield potential in intermediate, high rainfall, and irrigated production areas of the PNW round-out Seahawk's complete package. Seahawk should be of particular interest to growers in Spokane, eastern Whitman, Columbia, and Walla Walla counties, northern and southern Idaho, and the Willamete Valley of Oregon.

AGRONOMICS

Yield Potential	Very Good–Excellent
Test Weight	Excellent
Maturity	Medium-Later
Height	Medium
Quality	Most Desirable
Straw Strength	Very Good

DISEASE RESISTANCE

Stripe Rust	Excellent
Hessian Fly	Resistant
Aluminum Tolerance	Excellent

SEAHAWK SOFT WHITE SPRING WHEAT

Three-Year WSU Variety Testing Data

VARIETY *Club type	>20" YIELD (BU/A)	16"–20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	FALLING NUMBERS (SEC)
Seahawk	**81**	**74**	**61.4**	**10.4**	**325**
Ryan	82	74	60.6	10.0	329
Melba*	78	72	60.9	9.9	319
Louise	76	72	60.3	10.1	334
Tekoa	83	71	61.9	10.0	322
WB6341	75	71	60.2	9.5	251
Diva	78	71	60.7	10.1	336
Whit	76	69	60.6	10.2	302
JD*	75	68	62.0	10.6	319
WB6121	76	66	61.6	11.2	277
SY Saltese	73	66	61.2	10.0	342
Babe	69	64	60.6	10.0	333
WB-1035CL+	62	60	59.6	11.5	296
C.V. %	6	6	1	5	
LSD (0.05)	2	2	0.17	0.15	

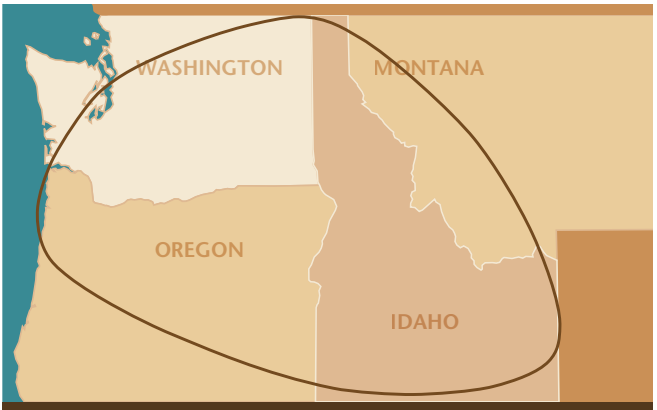
>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2016–2018, 12 loc/years
16"–20" Precip (Dayton, Mayview, Plaza, St. John, Walla Walla) 2016–2018, 13 loc/years
Falling number based on 9 location average in 2015 (5) and 2016 (4)

AVAILABILITY

Foundation seed of **Seahawk** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection for this cultivar is approved.



Intended Production Area

SEQUOIA

HARD RED WINTER WHEAT

Sequoia (WA8180) is a hard red winter wheat developed and released in 2015 by the Agricultural Research Center of Washington State University. Sequoia provides a combination of superior emergence, excellent yield potential, and desirable end-use quality for dryland winter wheat production areas in the Inland Pacific Northwest. Data indicate Sequoia emerges faster than comparison varieties such as Finley and Farnum. Sequoia is best adapted for regions in Washington and Oregon receiving less than 12 inches average annual precipitation in a deep-furrow planting system, where the varieties Farnum, Finely and Bauermeister have historically been grown, and is an excellent choice where emergence and high yield potential are desired.

AGRONOMICS

Yield Potential	Excellent
Emergence	Excellent
Protein	Average
Test Weight	High
Height	Tall
Straw Strength	Very Good
Cold Tolerance	Very Good
Quality	Desirable

DISEASE RESISTANCE

Stripe Rust	Adult Plant Resistance
Strawbreaker Foot Rot	Susceptible
Snow Mold	Susceptible

SEQUOIA HARD RED WINTER WHEAT

Five-Year Variety Testing Data from 2014–2018

VARIETY	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	PLANT HEIGHT (inches)
Sequoia	**47**	**61.2**	**11.7**	**39**
Farnum	42	59.0	12.5	37
Whetstone	46	61.8	12.5	31
Keldin	49	62.0	11.9	32
C.V. %	10	2	5	5
LSD (0.05)	1.4	0.3	0.2	0.5

<12" Precip (Connell) 2014–2018, (Horse Heaven, Lind) 2014, 2016–2018, (Ritzville) 2014–2015, 2017–2018, (St. Andrews) 2017–2018, 19 loc/years

AVAILABILITY

Foundation seed of **Sequoia** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection for this cultivar is pending.

Dryland Wheat Areas <12" Annual Precipitation

TEKOA

SOFT WHITE SPRING WHEAT

Tekoa has top-end yield potential, combined with desirable yield protection traits, and excellent quality. Tekoa is a soft white spring wheat variety released by Washington State University that may be grown in all production zones of the Pacific Northwest. It has later maturity, very good resistance to stripe rust, medium height with very good straw strength, very good test weight, Hessian fly resistance, aluminum tolerance, and excellent yield potential in low, intermediate, high rainfall, and irrigated production areas. As a later maturity variety with high test weight, it may provide a valuable option to mitigate risks and take advantage of years with above average moisture in all production regions.

AGRONOMICS

Yield Potential	Excellent
Test Weight	Very Good
Maturity	Medium–Late
Height	Medium
Quality	Most Desirable
Straw Strength	Excellent

DISEASE RESISTANCE

Stripe Rust	Very Good to Excellent
Hessian Fly	Resistant
Aluminum Tolerance	Excellent

TEKOA SOFT WHITE SPRING WHEAT

Three-Year WSU Variety Testing Data

VARIETY *Club type	>20" YIELD (BU/A)	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	FALLING NUMBERS (SEC)
Tekoa	**83**	**39**	**62.1**	**10.5**	**322**
Ryan	82	35	60.7	10.5	329
Seahawk	81	35	61.6	11.0	325
Melba*	78	40	61.2	10.4	319
Diva	78	37	60.8	10.7	336
Whit	76	34	60.6	10.6	302
Louise	76	38	60.4	10.6	334
WB6121	76	34	61.8	11.6	277
JD*	75	37	62.1	10.9	319
WB6341	75	36	60.4	9.9	251
SY Saltese	73	35	61.4	10.6	342
Babe	69	34	60.9	10.5	333
WB-1035CL+	62	34	60.0	11.7	296
C.V. %	6	8	1	4	
LSD (0.05)	2	2	0.2	0.2	

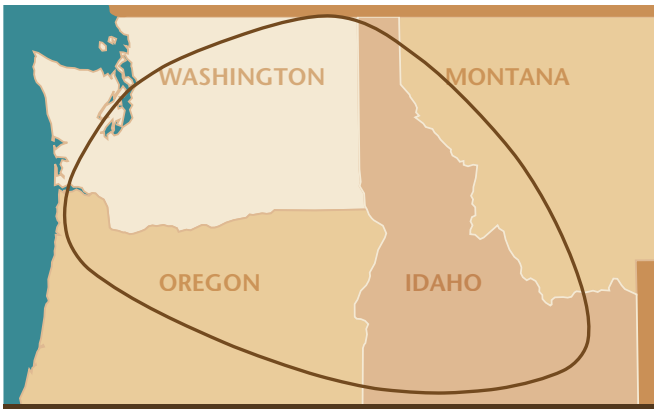
>20" Precip (Fairfield, Farmington, Palouse, Pullman) 2016–2018, 12 loc/years
<12" Precip (Bickleton, Horse Heaven, Lind) 2016–2018, 7 loc/years
Falling number based on 9 location average in 2015 (5) and 2016 (4)

AVAILABILITY

Foundation seed of **Tekoa** is maintained by the Washington State Crop Improvement Association.

For seed inquiries please call (509) 334-0461.

U.S. Plant Variety Protection for this cultivar is pending.



Dryland Wheat Areas >12" Precipitation

FOR MORE INFORMATION

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